Welcome to the Virtual Reality in Aged Care Transformational Toolkit!

Our “Transformational Toolkit”, outlines what you need to know to implement your own VR experience into your facility! Follow these simple steps, and watch your residents smile, laugh and share life stories!
Congratulations on deciding to implement VR into your Aged Care Centre! If you feel a little bit nervous or apprehensive, try not to worry – VR is designed to be easy and intuitive to use and will likely be a very exciting experience for your residents. VR is pretty easy to use, but there are some things you’ll need to have in place to be VR ready, the following is an outline of what you will need and where it is located.

Content

The **Getting VR Ready** section on pages 4 & 5 provides an overview of the equipment you will need, tips on VR safety, and our suggestions on some initial applications (apps) to start your VR journey.

On page 6, we will help you get **Comfortable with VR** with advice on the essential steps to take before delivering a session for your residents.

On page 7, we help you to **Get Started with your Residents**, taking into account safety aspects, some preparatory tasks, and scheduling VR sessions.

In the **Delivering a Session** on page 8, we help you map out a VR safe zone using the Oculus’ guardian system, explore putting on/taking off headsets and guide/monitor residents during VR sessions.

Page 9 outlines strategies for **Building your VR community** among residents, volunteers and family and explore some common VR issues and what to do if these arise.

Page 10 provides answers to some VR **FAQ’s** and links to further **Resources** and useful contacts.
The Oculus Quest 2 from Meta is a user-friendly VR headset with many apps and games available. We recommend purchasing the adjustable elite head strap (simplifies putting on/taking off the device) and carry case for an overall cost of approx—$600.

The Quest 2 requires a Wi-Fi connection and a compatible smart-phone to install the companion app (available on the Apple Store and Google Play Store).

To access VR, a user will need:

- An Oculus Quest 2 VR kit
- Wireless internet (Wi-Fi) access
- A safe, hazard-free space
- It is best to have multiple headsets to enjoy experiences simultaneously.
- Optionally, a TV with an HDMI connection and Chromecast is desirable for broadcasting the virtual experience.

Physical Space Requirements

During set-up, a choice can be made to be stationary or to map out a “safe zone” (also known as the Guardian). An indoor floor space (2m x 2m) used for VR should be clear of obstacles, and provide enough space for head and arm movement – residents can be seated in their own room, a lounge or dining chair, or even in a theatre space.

TIP: The safe zone can be adjusted at any time via the headset settings menu.

NOTE: Our sessions were run using seated positions initially.
Before starting a VR session, check with your Occupational Health and Safety (OHS) representative to ensure you follow any local guidelines. Determine any health risks prior and during the session check if the user is feeling OK. Let residents know they can stop anytime they like. Start with seated VR sessions until you’re more familiar.

To deliver VR in a COVID-safe way, the following measures should be followed and maintained:

- Clean your own hands with hand sanitiser before and after touching the headset or any other equipment.
- Ask participants to wash or sanitise their hands before and after handling any VR equipment.
- Sanitise the headsets between each use with antibacterial wipes.
- Use silicon covers for each headset. These should be removed and wiped down between each use with a clean cover used for each participant.
- The VR lenses may also be cleaned gently with a microfibre cleaning cloth.

Apps are VR experiences that are downloaded via your headset. We suggest selecting apps that:

- Can be used in a seated position.
- Have little need for controller use.
- Free or low cost.
- Have limited navigation required.

The following apps are suggested for initial experiences:

**First Contact** (great to get familiar with the VR environment).

**First Steps** (helps users get used to the controllers).

**AlcoveVR** (Free): designed by the American Association for Retirees and Pensioners, includes a wide selection of curated content such as travel and adventure experiences, health and fitness games.

**YouTube VR** (Free) you can find a variety of 360 VR Video experiences Go skydiving, visit the Iguasu Falls, or helicopter ride to Everest Base Camp!
Getting Comfortable with VR

Staff

Staff are integral to getting VR started as an activity in aged care. It’s important for staff to practice and feel comfortable using VR so that residents can have the best possible experience. A senior management sponsor or advocate who can champion VR also really helps to ensure VR is supported in the organisation.

“Just want you to know that the headsets are all set up and ready to go! Downloaded Alcove and had a go at some games. It’s amazing! I even went to visit my hometown.” Activities Manager

“I ran a session all by myself and it was a bit hard but still could manage to take Heather to Alaska, Keith on a helicopter and Rita to Africa. It was a short session but I had 5 residents that attended. New people want to give it a go, so I think it’s going well!” Activities Manager.

Important Advice – Guiding aged care residents in VR

Some residents may be hesitant to use VR. It’s important to listen to the residents, be empathetic and reassuring, and enable people to be in control of their own experience. Continually assess residents’ ability during the VR experience. Residents’ capacity and ability sometimes vary daily, or even hourly.

Before Running a VR Session

- Complete the VR Online Training – (our course and the equal reality course on immersive safety) https://equalreality.com/courses/facilitator-training/

- Practise putting a headset on someone else. Get familiar with doing this with people who wear glasses. Practise helping to adjust the headset.

- Try out the apps you plan to use with the residents, so you’re familiar with how they work. If possible, try them out with another staff member so you can see how the experience might work for someone else.

- Organise an appropriate space, have cleaning equipment ready to go (anti-bacterial wipes and silicon face covers).

- Charge up your headsets and have fresh batteries ready for your controllers.
Schedule VR sessions for your residents

Sessions should run for approximately 60–90 minutes. As it can be tiring at first, residents should aim to stay in VR for 5–10 minutes, before having a break for 5–10 minutes.

“Tried a few residents with it last week. They enjoyed interacting with the dolphins in Ocean Rift. Looking forward to learning more tomorrow.” Lifestyle Manager.

Preparation

Select an indoor space with ample lighting (required for the VR Headsets’ sensors to work). Each VR facilitator should guide a maximum of three (3) residents per session. Provide enough seating for all residents to sit comfortably and have enough room for fully extending their arms in all directions.

Consider safety

Complete your occupational health and safety assessment. Make sure you have a supply of anti-bacterial wipes and some spare silicon face covers. Make sure people have enough space to move around, even if seated.

If someone wants to have a VR experience, then support their curiosity and interest as best possible. Aged care residents who are cognitively and physically capable of participating, as assessed by the aged care facility, may also wish to complete a VR Profile form. You need to make sure residents are safe, and let them know they can stop the experience at any time by asking the facilitator or by taking the VR headset off. They are in control and can stop.

There is no right or wrong. Everyone has different levels of comfort and enjoyment. Some may prefer less intensive experiences, while others will prefer more intensive experiences. There might even be some residents who only want to observe others using VR.

Tip: Our project used the Hot Air Balloon experiences in Alcove as a great first taste of VR. Other travel and nature-based scenarios (for example, Ocean Rift) are also good.
Delivering a Session

Start off with some information about VR and let residents take a look at the headsets and controllers. Answer any questions people may have. This is also the time to check in with residents about their own preferences and any health issues that may affect their experience.

Map out the Safe Zone

Within the headset you will need to set up a “Guardian” area on the floor around a participant before putting their VR headset on. The best way to do this is to stand directly behind the stated resident, set the height to their eye level, and draw the guardian boundary at least 1.5 metres in diameter around them, as seen below.

Putting the headset on

Show the participants the headset and how to place it on their heads. (TIP: Place the headset on as if you’re putting on a pair of glasses.) If the resident wears glasses for reading, they can be kept on (make sure the glasses attachment is used, to ensure comfort).

Assist if necessary, but ASK permission to help adjust the headset or volume. Check to see how each resident reacts to the experience and monitor.

Questions to ask residents during their VR experience:

- What can you see?
- Where are you?
- How are you feeling?
- Do you want to try more?

Removing the headset

At the end of the experience, lightly touch the resident’s shoulder and inform them that you are going to remove the headset. Be aware of glasses as you remove the headset.

Wrapping up

After their VR session, try asking residents how they went and want they want to experience next time.

“Thank you for giving me the opportunity to see the enjoyment on their faces and allowing them to experience this.”

Personal Support Worker Manager.

Draw standing here and create boundary as shown
Once you have introduced VR into aged care, residents will most likely want to do it often! So – alongside incorporating VR into existing leisure activity programming led by paid staff – you may consider asking families and volunteers to run VR activities. Families, for example, may find that doing VR with their loved one is a novel and exciting activity to do together.

Taking photos of residents in VR and sharing them via a community noticeboard is also a great way to get everyone involved! VR can also help create lively conversation and foster better connections between staff, residents, and each other.

“\textit{I didn’t do the session last week. But I heard everybody talking about it so I thought I’d give it a go.}” Muriel, 94.

VR can also help create better connections between staff, residents, and each other. During our sessions virtual travel caused users to remember and share travel stories from their past. They also talked about places they still wished to go and things they wanted to do: VR can positively transform their aged care experience.

With the correct training, volunteers such as students or residents could also easily run a VR session – and you could incentivise volunteers (and staff) by letting them know they have completed “VR Ready for Aged Care” training.

\textbf{Common VR issues}

\textit{Issues that may be encountered include:}

- Being unable to connect to Wi-Fi.
- Being unable to login to the headset with the Facebook account
- Casting to television sets when using Chromecast.
- Slow or capped Wi-Fi.

\textit{To overcome these, it can help to:}

- Pre-set up/load the apps and the casting.
- Maybe talk with centre IT staff before implementation of VR.
- Consider using dedicated Wi-Fi for VR, and/or a dedicated TV or computer for VR

Casting will also require Wi-Fi access, and works best on the same Wi-Fi network connected to the headset.

Ensure VR headsets are fully charged and controllers have ample battery.

Also: Accept that nothing is ever perfect! In two sessions we ran, we could not get the casting to work at all, and in another session we could not log in to the device initially. Technology will sometimes fail: Use that time to gather ideas from residents about their next VR adventure!
Will it make me feel sick?
The VR experience can sometimes make people feel motion sickness. This is because of its immersive nature. If people feel sick, they should stop.

Will it hurt my eyes?
If used for long periods of time, VR can sometimes cause eye strain or fatigue. We recommend taking a break regularly, and limiting session time to twenty mins.

Resources
Is there anyone out there who can come and help us get started?
Yes. Contact The Ageing Revolution at info@theageingrevolution.com if you want to find out more about how VR training and facilitation can be delivered at your facility.

Online Virtual Reality in Aged Care Transformational Toolkit!
Aged Care VR Poster Download
VR Session Profile Form

Is it safe for people of all ages or only certain ages?
It can be used safely for people of all ages – as long as appropriate health and safety protocols are used.

Is it safe for people who have a mental illness or disability?
It can be used safely by people with different abilities. This should be determined on a case-by-case basis and the needs of the individual user.
This project – a collaboration between researchers from QUT, Griffith University, the University of Melbourne, La Trobe and the Ageing Revolution – was funded by a philanthropic research grant from Facebook, and initially trialled in three residential aged care facilities in Queensland in 2021 (Arcare, PM Aged Care and Rockpool).

We thank the management, staff, residents, and their families for engaging so actively with the project and sharing their experiences of experimenting with VR in aged care. For more details, please contact the lead researcher, Professor Evonne Miller – Director of the QUT Design Lab – at e.miller@qut.edu.au, and visit the project website, via qut.design.

Project Team

Chief Investigators: Evonne Miller, Glenda Caldwell, Jenny Waycott, Raelene Wilding, Barbara Neves & Steven Baker.
Project Manager: Leonie Sanderson.
Research Intern: Caleb Lewis, supervised by Shane Pike.